

Serial No. 09/801,405

Changes Made," showing the current amendments to the specification and claims is attached hereto.

Please amend the above-identified application as follows:

IN THE SPECIFICATION:

Delete the paragraph beginning at page 14, line 6, and ending at page 14, line 12, and replace with the following:

a1
Another construction of the information display device employed in the present invention includes two image display elements, and, by using the eyepiece optical systems corresponding to the individual image display elements, it makes a light beam emitted from each image display element enter one pupil. The individual image display elements and eyepiece optical systems correspond to the different display areas, respectively, and by observing with putting these display areas together, the design widens the angle of view (angle of visibility of displayed image), while realizing a thin and compact structure.

Delete the paragraph beginning at page 17, line 5, and ending at page 17, line 14, and replace with the following:

a2
Fig. 6 is a diagram schematically illustrating the outline of the construction of an optical system forming a hologram (hereinafter, such an optical system is referred to as a "manufacturing optical system"). In the information display device of the present invention, a hologram lens is obliquely arranged relative to a light beam of the displayed image and has optical power as an eyepiece optical system, and therefore it forms a nonaxisymmetric optical system. When this nonaxisymmetric optical system performs only the same function as that of a centered lens, asymmetrical distortion (trapezoid distortion) caused by decentering or curvature of image surface occurs. In order to prevent

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cond this, it is preferable that a hologram be provided with not only rotationally symmetrical wavefront reproducibility but also free-form surface wavefront reproducibility.

Delete the paragraph beginning at page 17, line 23, and ending at page 18, line 9, and replace with the following:

a3 Here, the second point light source B is so arranged as to substantially correspond to the position of an observer's pupil in the displayed image of the information display device. By arranging the second point light source B in this way, the optical path of light emitted from the second point light source B and that of light from the displayed image become substantially identical, and this makes it possible to make the diffraction efficiency utmost while the hologram lens is in use. In addition, between the first point light source A and the holographic photosensitive material H, the manufacturing optical system Gr mentioned above is arranged which is composed of five lenses G1 to G5 that are decentered and combined together. This manufacturing optical system Gr is so designed that the wavefront of the light emitted from the first point light source A is so controlled that the displayed image is observed in a good condition.

Delete the paragraph beginning at page 26, line 20, and ending at page 27, line 4, and replace with the following:

a4 In this embodiment, the concave reflecting surface is obliquely arranged relative to a light beam of the displayed image and has optical power as an eyepiece optical system, and therefore it forms a nonaxisymmetric optical system. When this nonaxisymmetric optical system performs only the same function as that of a centered lens, asymmetrical distortion (trapezoid distortion) caused by decentering or curvature of image surface occurs. In order to prevent this, it is preferable that the concave reflecting surface be provided with not only rotationally symmetrical wavefront reproducibility but also free-form surface wavefront reproducibility. Therefore, such a concave reflecting surface is

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cor formed as an anamorphic aspheric surface and best suited for correcting decentering aberrations.

Delete the paragraph beginning at page 33, line 15, and ending at page 33, line 21, and replace with the following:

a5 From the end of a frame 9, a cord 10 extends and is connected to a not shown movable personal computer or a portable telephone so as to receive image information therefrom. It is also possible to realize a wireless apparatus, if it is used in a close range. Because of the property of a hologram described earlier, it is possible to secure a high see-through function, and therefore this apparatus serves as an HMD (head mounted display) which is unlikely to cause a user to be fatigued and is wearable all the time. This is also best suited for an image display apparatus for use in a so-called wearable computer.

Delete the paragraph beginning at page 34, line 14, and ending at page 34, line 20, and replace with the following:

a6 From the end of a frame 9, a cord 10 extends and is connected to a not shown movable personal computer or a portable telephone so as to receive image information therefrom. It is also possible to realize a wireless apparatus, if it is used in a close range. Because of the property of a hologram described earlier, it is possible to secure a high see-through function, and therefore this apparatus serves as an HMD (head mounted display) which is unlikely to cause a user to be fatigued and is wearable all the time. This is best suited for an image display apparatus for use in a so-called wearable computer.

Delete the paragraph beginning at page 36, line 20, and ending at page 37, line 1, and replace with the following:

a7 As for a definition of the hologram surface, by defining the two light beams used for forming the hologram, the hologram surfaces are unequivocally defined. The two light